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Material and Technical Groundwork Concluded in China Afforestation - additional progress in spring afforestation activities

Spring afforestation activities are being implemented again this year in the northern and southern regions of China.

shelter belt forests and charcoal and fuel wood
In Fukien Province, windhreakmaxammaxfixemmont/forests have been planted
industrial wood
along the coastal areas. In the mountainous areas, memomyxixems/ forests
of tea oil, tung oil, tea and bamboo were planted with emphasis on the
build up of industrial forests. With the additional planting of trees along
the
the sides of/roads and around the villages, the afforestation areas in Fukien
Province in early March covered more than triple the areas covered by early
March a year ago. In early 1965, aerial afforestation was successfully
accomplished in the Wu-i Shan forest area in the northern part of Fukien
Province and, this year, aerial afforestation was conducted on 4,000
hectares of land in Chien-ming Hsien in the northwestern part of Fukien
Province.

Spring afforestation in Hupeh Province, which was practically completed by early April, comprised of afforestation areas of over 200,000 hectares and 150,000,000 "side-plot" tree plantings, showed a huge increase over the afforestation acreage for 1%5. Industrial forests were appropriately expanded, primarily with industrial wood trees, in the mountainous and hilly areas; charcoal and fuel wood forests were appropriately expanded, primarily with industrial wood trees, in the plains areas; pampas grass and willow trees were appropriately planted along the lake shore areas to solve the problems of firewood and shifting sands; and industrial forests were planted alongside transportation lines and river banks.

Cryptomeria forests were expanded in Huang-kang, En-shih, Hsien-ning and Hsiao-kan.

The 1%6 afforestation goal for Anhwei Province, which was more than double the goal for 1%5, was attained 15 days earlier than 1%5. This year, fast-growing tree seeds and conventional seeds were planted in various areas. Trees were planted around houses and villages and shelter belts were planted around the farmlands in the Huai-pei area. About 2,700 hectares of the more than 5,300 hectares of the sandy former river bed of the Yellow River in Tang-shan Hsien were afforested this year. Industrial forests and industrial wood forests were greatly expanded in the mountainous areas in the south. Charcoal and fuel wood forests predominate in the hilly areas. 6,700 hectares of bamboo were planted in various areas. Many of the people's communes in the hilly areas of Chiang-huai are also beginning to plant bamboo/ and more than 6,000,000 trees were planted along both banks of the Yangtze and Huai Rivers.

Between last year and the spring of this year, over 3,000,000 tall trees and over 10,000,000 shribs were planted on both sides of the more than 3,000 kilometers of vehicular roads in Kiangsu Province to exceed the original plans by a huge margin. Since the liberation, "verdancification" has been completed on about 1/3 of the vehicular roads in Kiangsu Province. Furthermore, over 67 hectares of seedlings are being cultivated for this road "verdancification" program.

Over 6,000,000 tall trees and fruit trees were planted in Shanghai 18,000-odd
this years spring. There were only 2,000 and trees in Shanghai before the liberation but now there are over 100,000 and trees are also planted in all the 150-odd vacant lots within the city.

Spring afforestation in Hopeh Province covers over 40,000 hectares,

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which is an increase of 1/3 in the acreage of afforestation areas and "side-plot" tree plantings over the same period a year ago.

Afforestation activities have been developing extensively from the city proper to the suburbs in Peiping. Within the city of Peiping, over 2,000 special members of "verdancification" units and 70,000 others have participated in compulsory labor to dig over 1,000,000 holes and to plant over 100,000 purple sophora japonicas around roads and buildings. Plans this spring are also under way/to plant over 500,000 trees - poplars, willows, acacias, oil pine, white-bark pine and cypress - along the Peiping-Tientsin Railway and over 600,000 trees [of the same varieties] along both banks of the Peiping-Mi-yun Waterway.

Additionally, 1,000,000 trees have been planted to date in Tibet to raise the total area under afforestation to about 670 hectares. In the Ho-t'ien Special District in Sinking, over 7,000,000 trees were planted this spring in 10-odd days around farmlands and the Gobi Desert.

Tree Plantings in One Year Equivalent to 10 Times the Number of Trees Planted During 35 Pre-Liberation Years

China's afforestation activities are expanding yearly. With the development of agricultural collectivization, tree plantings have increased from several hundred thousand hectares per year to one million several hundred thousand hectares per year. The number of tree plantings in 1963 covered an area six times larger than the total area covered during the 35 years from 1911 through 1946. The acreage was further increased in 1964 and, in 1965, the number of tree plantings covered an area 10 times larger than the total area covered during the aforementioned 35 years.

In the olden days, the forests in China were denuded through indiscriminate Approved For Release 2003/12/22: CIA-RDP78-04546A003200030004-2

But now, new forests are taking root in the various areas throughout

China and a transfiguration is in taking place over the mountains and

rivers in many of these areas. In Peiping, for example, over 15,000,000

trees were planted between 1949-1964 and they have reportedly reduced the
 storms

intensity of the fierce dust/mixem that traditionally invades Peiping in

the spring. From 1951-1954, Peiping was reportedly harassed by fierce

dust storms every third day during the spring. From 1959-1962, the frequen cy

was reportedly reduced to once every eight days and it has reportedly been

further reduced in recent years. Reforestation is also assuming a major
 soil

role in/erosion control, providing shelter from wind and sand, weather control,

minumed decreasing natural calamities, guaranteeing agricultural production,
and in promoting production in forestry, stock-farming, fisheries, industry
and subsidiary industries.

wind and sand encompassing
In the vast region of sundandandandand the western sectors

of the three provinces in Northeast China, the Pa-yen-tiao-erh Meng District
in the western sector of Inner Mongolia, the Manass Reclamation District in
the Sinkiang Uighur Autonomous Region, the northern sector of Shensi Province,
the Ho-hsi Corridor in Kansu Province, the eastern sector of Honan Province

and the western sector of Hopeh Province, huge sand breaks and various types of farmland shelter belts have been constructed. They form a strong network of shelter belts to resist wind and sand, and to protect several million hectares of farmland and grassland. Before the liberation, these areas consisted of vast deserts and barren waste hand/as far as the eye could see. Year after year of swirling winds and dust clinging in the air brought untold sufferings to the farmers. Today, the shelter belts have weakened the strength of the winds, the shifting sands have/stilled somewhat, several million hectares of farmland have been seeded and cultivated, varieties of crops are growing rapidly and the yield is rising. Soil improvement due to afforestation, the development of water conservation projects and the gradual increase in the varieties of crops agricultural/products have made it possible for these areas to produce which had hitherto been neglected in many of the windy and sandy areas, and to steadily raise the living standards of the inhabitants of these areas.

[Hunan] History of Forestry in Hupeh/Province

The average yearly acreage afforested in Hunan Province during than 10-edd years following the liberation was more than 37 times larger than the total acreage afforested during the Kuomintang regime. The mountainous areas as well as the traditionally barren and hilly Han-shou and Lin-li Hsiens bordering Lake Tung-t'ing are no longer completely barren; their timber reserves have been greatly expanded. In addition to the afforestation of barren and stony mountains, industrial wood forests, industrial forests, charcoal and fuel wood forests, fertilizer forests and feed forests are being planted.

established in various areas hitherto called barren areas. These mountain forests, covering over 670,000 hectares, are playing a major role in construction and in the development of mountainous areas. The state-operated Mang-shan Ramanham/Forestry Farm has been in operation less than 10 years but it already covers over 8,700 hectares under afforestation and silviculture including several hundred hectares of industrial forests, fruit orchards and medicinal plants. A newly constructed network of forest roads crisscross the farm and newly constructed motor vehicle roads ***Example Constructed** total several tens of kilometers. This farm, one of many in Hunan Province, is a modern forstry base containing processing plants, a hydroelectric power plant, housing for **// the workers, schools, hospitals and shops.

Group operated forestry farms have also developed rapidly. They plant trees such as bamboo and paulownias between the food crops and in certain areas they are busily engaged in the planting of industrial crops and In connection with the subsidiary products. The/more than 670-hectare cryptomeria forest planted by the forestry farm of the Chin-lung-shan People's Commune, the earlier planted trees will be ready for cutting in another 4-5 years; those planted later have grown to the height of 5-6 meters within several years/ and some are over 10 meters tall.

Forest fires often occured during the fall and winter under the Kuomintang regime because they neglected to enforce afforestation or preservation measures **Exemptation** but, after the liberation, the People's Government issued forest preservation orders and directives and established forest preservation organizations and facilities. In Chiang-hua Hsien alone, the government constructed a firebreak 10 meters wide and 3,400 kilometers long, and established 580 fire lookout towers. Huge efforts were exerted in 1%5 to exterminate next preservations and stablished 580 fire lookout towers. Huge efforts were exerted in 1%5 to exterminate next preservations.

of over 100 airplanes and over 1.8 million workers to exterminate pine caterpillars.

3,000 Active State Forestry Farms

In this manner, New China is promoting mass afforestation programs. developing positive state afforestation programs/ and establishing state forestry farms to create a new timber forest base. During the past 16 years, China has/cver 3,000 state forestry farms (more than 100 times the number of forestry farms established under the Kuomintang regime) and cultivated several million hectares of timber forests. In Shansi Province, for example, Chin-sha-t'an in Yen-pei Special District had been devastated by successive wars prior to the liberation and its land mass covering several hundred thousand hectares had been transformed into a huge sandy wasteland. After the liberation, 16 state forestry farms and 11 state nurseries were established in this/districts Joining forces with the inhabitants of the seven hsiens in this diatri area, new forests were planted on 1%,000 hectares throughout this area to transform both sides of a 50 kilometer stretch of the Great Wall of China into ribbons of forests. These forests are growing and, within acreyal years, they will be producing 200,000 square meters of timber.

Progress in the Development of Forest Areas

In connection with the establishment of forest farms, positive progress is being made in the development of existing forests as well as afforestation. In the forest areas of Northeast China and Mongolia, largest timber producing bases in China, that produces more than 2/3 of the total volume of timber produced by China annually, various construction programs are being implemented

these past several years promotes/to take advantage of the full potential of these timber bases. Considering, for example, the want construction of roads for transporting the timber out from these forest areas, there existed prize to 1963 a mere 0.7 kilometer of roads per each hectare of timber ready to be transported out from these forest areas. This ratio was increased to 1.1 kilometer per were greatly hectare in 1%4. The basic construction obligations for 1%5/warextarestare/ expanded and construction of (including forest railroads the and motor vehicle roads) attained the total length of over 2300 kilometers, a 23.5% increase over 1964.A large percentage of these transportation roads were constructed to transport out the transport cut timber from the newly established forestry farms or to develop new timber producing bases. A forest railroad Food was constructed in 1965 kmxxhm from the south side to the north side of Tachtha the Lesser Khingan Mountains by the Yu-hao Forestry Bureau of the Ingham I-ch un Forest Area to develop two new forestry farms. This mond/construction project required on-the-spot digging and bridge construction by several tens of thousands of forest area construction workers deep in the mountainous forests of the Lesser Khingan Mountains and the Ch'ang-pai-shan Forest Area.

Simultaneously, EMERKEMENT work was conducted on timber processing, forest product chemical industries, power transmission lines, a small power plant, a large seed warehouse and housing for the workers.

To promote the basic construction of these forest areas, the various forestry bureaus of the Northeast China and Mongolia Rement Forest Areas bolstered their basic construction specialist teams by assigning one out of four forestry worker to basic construction/ in 1965. Through the efforts exerted by these forest bureaus during the past 2-3 years, high levels of attained by in these mechanization and semi-mechanization have been effected by these forest areas. The three mechanization teams assigned to oversee all the forest areas.

construction work on timber transportation roads within all the forest areas have accounted for about 1/3 of the overall work on road construction/ over the past year. In the swampy forest area worksites, where the use of large machinery is unsuitable, the workers are constructing roads by transporting gravel via aerial ropeways and rubber-wheeled pushcarts.

The primeval fibrest (Shen-nung-chia) that straddles three hsiens Hsing-shan, Pa-tung and Fang - in the northern sector of Hupeh Province
along the middle reaches of the Yangtze River is being developed since 1965.
cryptomerias piercing
Polar/exymtemskieskesking the clouds, priceless tropical camphor trees and,
fast-growing Hua-shan pine trees and countless varieties of medicinal
plants have been lying dormant in this primeval forest for a 1,000 years.

Machinery and Equipment in Support of Forestry Development

Silvicultural machinery industries are developing in various areas

Machinery
in step with the developments in forestry. Since 1958, the Small/Machineries

Plant and the Handicraft Industries Cooperative in Kiangsu Province, one of
the provinces in which silvicultural machinery plants are flourishing,
reorganized and expanded their facilities and developed into imposing
specialized plants. In 1965, the silvicultural machinery industries in
this province manufactured over 20 varieties of machinery. They are already
being widely used in the forest areas of over ten provinces and regions
such as Kirin, Heilungkiang, Inner Mongolia, Yunnan, Hupeh and Szechwan.

forest clearing

The aerial/makerialcontines ropeway manufactured by the Soochow Silvicultural Machinery Plant is a type of combine suitable for use in the felling of forests in the high mountainous areas in southern China. It is suitable for clearing forests cradled between mountains at altitudes of 1,000-4,000 meters above sea large level. Its capacity of 2-3 tons per

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trip is 8-9 times more efficient than forest clearing with manual labor.

Silvicultural machinery manufactured by the Soochow Silvicultural Machinery

Plant also includes seven other types of forest transportation vehicles

trucks

including finkeres/for transporting logs, flatcars and oil pipe vehicles

[sic].

(2-ton hoisting capacity)

The dual winch/manufactured by the Ch'ang-chou/Minimizer Machinery is also a vital piece of equipment

Plant **Chinarhoisting*** aparity** for loading timber*, binding and floating logs downstream. This plant also manufactures timber clearance and transportation machinery such as manual lever-operated winches, lightweight winches and single-strand revolving aerial ropeways.

Machinery

The dibblers, which were successfully trial manufactured and in 1965 and are being manufactured regularly at the present time by the T'ai-chou Silvicultural Machinery Plant, weigh a mere 15 kilograms with power can be conveniently equipment attached and they are exampled of operated by two persons.

They are capable of dibbling over 400 holes (about 30 cm in diameter and about 1 meter deep) per hour and they can be used along the sides of mountains, river banks and roadsides.

The wooden two-bladed afforestation machinery manufactured in the Yen-pei District of Shansi Province is being used for large-scale

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afforestation. Drawn by the Tung-fang-hung Model 54 Tractor, this machinery is capable of digging ditches, planting seedlings and refilling the ditches with in one movement. With the use of this machinery, 4 persons can afforest 6-8 hectares of land in 20 hours. This method is 50-60 times more efficient than manual labor and it produces a neater job. This is an extremely convenient means of promoting and manual managing mechanization.

Waw/type power/management being delivered in a steady stream to the forest areas in Inner Mongolia, Northeast/ China, Southwest China and East China by the Liu-chou Machinery Plant in the Kwangsi Chuang Autonomous Region. This powerful gasoline-motor saw Model 651 weighing a mere 11.5 kilograms is capable of felling huge 450 cm diameter trees. It is capable of reducing to a large extent the work efforts of the wood cutters. In 1965, this plant increased the production of these saws to over 1,000 more than the production figure for 1964. At the present time, these saws — the are only being pres manufactured by two plants in China / Liu-chou Machinery Plant and the Ch'ang-ch'un Power Machinery Plant.

the beginning of Since/thexkeginningxef this year the Shao-wu Automobile Repair Plant of the Fukien Forest Industry Bureau has been manufacturing truck mounted Moreover, hydraulic jib cranes for loading and unloading timber. **Ring** the forest farms in the various areas have been exerting their efforts toward mechanization in forest planting, control, timber selection, carry out and processing. Mechanization in "carry out" is practically completed in most of the areas.

The 36 state-operated and mechanized forest farms located in the western sector of the sparsely populated, wind and sand swept three provinces of Northeast China have afforested about 50,000 hectares of land, some since 1953 and the majority since 1958. These forest farms own a combined total of over 200 tractors (combines) and over 1,000 pieces Approved For Release 2003/12/22: CIA-RDP78-04546A003200030004-2

of huge equipment such as tree planters, weeders and surfacers. Mechanized increased afforestation xxixxx/the life expectancy of trees 10-20 percent over manual their hand-planted afforestation and accelerated/the growth rate. For example, papkage/
poplars grew 0.8 meter in one year whereby the machine-planted poplars grew 1-1.5 meters.

Development of New Trees and Planting Techniques

In line with developments in mechanization, significant prospects in silviculture include the discovery of new seeds and the propagation of planting techniques. Noteworthy of the new seeds being propagated are the Sha-tsao, a type of silverberry called the "Desert Hero" (good life expectancy; it will grow in the desert, where the surface temperature reaches 70 degrees & Contigrade; it lowers the water level of alkali soil; it decreases the salt content of the soil; it improves the soil; it grows fast; its seedling will grow 0.5-1 meter in one year; and it will bloom and bear fruit in 4-5 years), the Mu-ma-huang, which is effective against the wind and the sand in the south (native to Australia; also known as Australian ironwood; good quality hardwood; suitable for mine props; source of staple fiber; rapid growth, approximately 1-2 cm per day), and the a wild oil-producing shrub (its mut, like the walnut, Wen-kuan-kuo, which is also known / is 66% oil; grows more rapidly than the walnut; extremely good quality wood).

New planting techniques are also contributing to the growth of **Taxaskry/*

products in China. For example, the cryptomeria intensive cultivation method,

which represents 10 years of **Ex testing on a method that had been experimented

by the masses, was adopted by the Lai-chou Silvicultural Testing **Exams* Station

in Fukien Province to grow cryptomeria forests 5-10 years **Exams* faster than

the ordinary cryptomeria forests. This was accomplished by selecting the

appropriate forest land, careful soil preparation before afforestation, Approved For Release 2003/12/22: CIA-RDP78-04546A003200030004-2

healthy
selection of thick/firm seedlings, appropriate close planting, careful tending,
and rational
rational
rational/
required about 25 years to mature, reached maturity/as early as 10 years under
this new method (including the age of the sapling). The average height of the
is
trees were/ere 11 meters, their chest-high diameters are 12 cm and the
volume yield of forests ere is 375 cubic meters per hectare.

The popular bamboo branch seedling cultivation method and the bamboo joint seedling cultivation method, which were discovered by the farmers of Hsin-hui Hsien in Kwangtung Province four years ago, are suitable for use in the cultivation of fascicular bamboo. The bamboo branch seedling cultivation method involves the selection of healthy bamboo as seed bamboo. The secondary from the seed bamboo is broken off around the third joint and planted obliquely in the seedling beds. For the bamboo joint seedling cultivation method, the seed bamboo is cut between the joints - one joint length for the thick lower and central portion of the seed bamboo and two joint length for the slender upper portion. While protecting the buds on the joints, harmened horse-ear slits are made above and below the joints at opposing angles and the slitted portions of the seed bamboo are planted in the ground. Since the root germination rate of seedlings is active, growth is rapid and the survival rate is normally about 90%.

At the recent National Forestry Workers Conference, which was held in Peiping, recommendations were made for the adaptation of a number of effective grafting techniques and hope was expressed for the extensive popularization of these techniques in certain specific areas. These grafting techniques include incl

proves that their results are excellent. Statistics from Shantung, Hopeh, Shansi and Peiping show that graftings of Suan-tsao to Ta-tsao have been accomplished on over 25 million treesand/The grafted Pan-li forests in Kiangsu Province cover over 2,000 hectares. The 10 provinces and regions including Kwangsi, Kwangtung, Fukien, Hunan and Kweichow have successfully trial grafted tungoil trees. They have cultivated tung oil seedlings and prepared the parent stock and, this year, they are making preparations for large volume grafting.

Chinese grafting techniques have developed extensively over these past varieties few years, the maximix/of their grafted trees are gradually increasing and they are being popularized in many areas. The development and popularization of these grafting techniques are being watched with extreme interest because vital they represent one/facet of Chinese development in silviculture hereafter incorporating volume, speed, magnificence and wastelessness.

An extremely ambitious third 5-Year Plan was initiated this year in China. From the standpoint of silviculture, this is also a grandiose program in the reconstruction of nature. The Chinese people's economy has been heightened overall and the material and technical bases for forestry construction has been further strengthened. The additional manpower of axxivity 650,000,000 people will, in the near future, undoubtedly attain complete "verdancification" of the China and the transformation of the land into gazzi parks and forests.

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030004-2 Huge quantities of timber bring from Kwangsi Chuang Autonomous Region in South China being floated out via the Hsi Chiang (Pearl River)

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Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030004-2 Loading timber from the timber pox storage and processing plantwicking of the Ta-hai Forestry Bureau whithe in Heilungkiang Province

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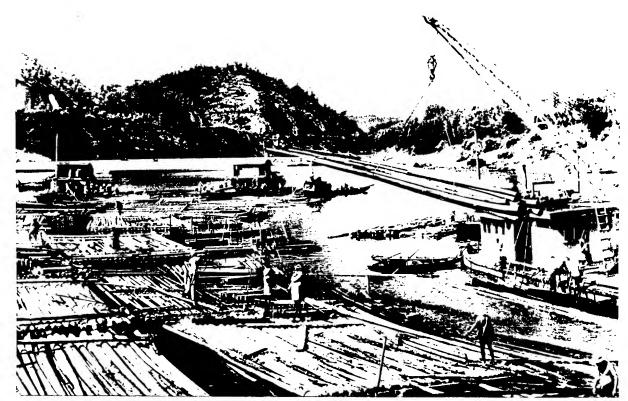
Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030004-2 Forest railroad of the Greater Khingan Mountains Forest Area in Northeast China

Newly installed selector-conveyor at the timber storage site of the Ken-ho Forestry Bureau of the Greater Khingan Mountains Forest Area in Practically all the Northeast China. The operations of this forest area from felling to transport-out have been mechanized.

CHINA D-0497 KWANGSI PROV. Formation of timber rafts headed for lumber mill on Hsi-chiang River. Prior to 1966. Confidential (1,18,29,30) CIA 1150772

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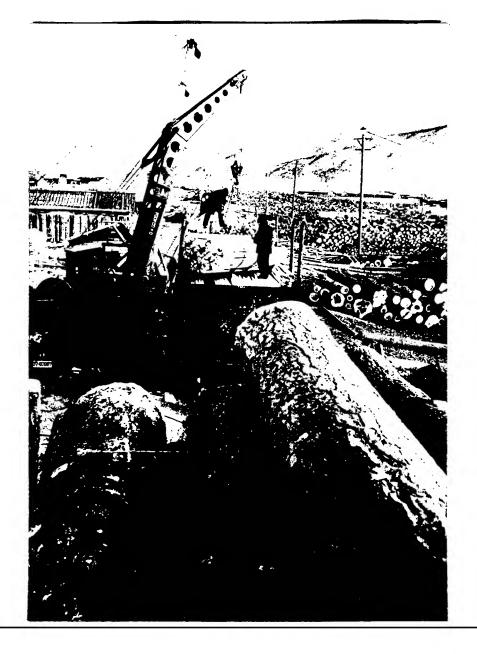
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CHINA C-0203 HEILUNGKIANG PROV.
Loading timber at timber storage & processing plant of Ta-hai Forestry
Bureau. Prior to 1966.
CIA 1150773



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CHINA A-0203 HSING-AN LING SHAN-MO 50 48 N 126 30 E Forest railroad. Prior to 1966.

Confidential (1,27)

CIA 1150774

25X



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CHINA A-0203 HSING-AN-LING SHAN-MO 50 48 N 126 30 E
Newly installed selector-conveyor at timber storage site of Ken-ho
Forestry Bureau. Prior to 1966.
Confidential (18)

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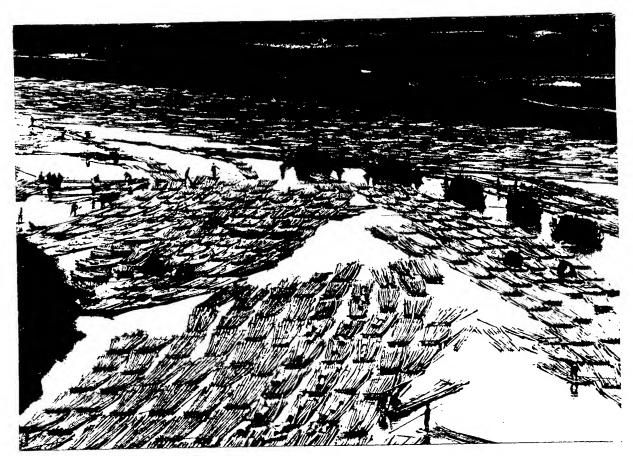
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Huge quantities of timber being floated out from the Min-k'ou Timber
Procurement Station, Hsiu-ming Hsien, Anhwei Province, East China. Located
in the southern sector of Anhwei Province, Hsiu-ming Hsien is mountainous,

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